

## METHOD FOR DESIGNING A CIRCUIT FOR PROGRAMMABLE MICROCONTROLLERS

### ABSTRACT

5           A method to program a microcontroller using a software program. First a user selects a module from a catalog of available modules. The module may be for implementing an amplifier, timer, pulse width modulator, etc. This causes information related to the selected module to be displayed. For example, a schematic and data sheet for the selected module may be displayed. Next, the

10   user requests a position and places the selected module in a graphical user interface, which represents the resources available to implement the available modules. For example, the resources may be programmable system on a chip (PSoC) blocks. Additional user modules may then be selected and placed. The user then configures the circuit by selecting circuit parameters for the user

15   modules (e.g., amplifier gain), pin configurations, and interconnections between PSoC blocks. The user may then edit source code used to cause the user modules to perform their functions.